

SEQUENCE LISTING

#4
AA 7/25/01

<110> Reiter, Robert E.
Witte, Owen N.
Saffran, Douglas C.
Jakobovits, Aya



<120> PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF

<130> 30435.69USD1

<140> 09/855,153

<141> 2001-05-14

<150> 09/564,329

<151> 2000-05-03

<150> 09/359,326

<151> 1999-07-20

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<150> 09/318,503

<151> 1999-05-25

<150> 09/251,835

<151> 1999-02-17

<150> 09/203,939

<151> 1998-12-02

<150> 09/038,261

<151> 1998-03-10

<150> 60/124,658

<151> 1999-03-16

<150> 60/120,536

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<151> 1998-12-21

<150> 60/074,675

<151> 1998-02-13

<150> 60/071,141

<151> 1998-01-12

<150> 60/228,816

<151> 1997-03-10

<160> 27

<170> PatentIn Ver. 2.0

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<211> 998

<212> DNA

<213> Homo sapiens

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 gcctgcaggt ggagaactgc acccagctgg gggagcagtg ctggaccgcg cgcacccgcg 180
 cagttggcct cctgaccgtc atcagcaaag gctgcagctt gaactgcgtg gatgactcac 240
 aggactacta cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca 300
 gcggggccca tgccctgcag ccggtgccc ccaccccttg gctgctccct gcactcggcc 360
 tgctgctctg gggacccggc cagctatagg ctctgggggg ccccgctgca gccacactg 420
 ggtgtggtgc ccagggcctt tgtgccactc ctcacagaac ctggcccagt gggagcctgt 480
 cctggttcct gaggcacatc ctaacgcaag tttgaccatg tatgtttgca ccccttttcc 540
 ccnaaccctg accttcccat gggccttttc caggattccn accnggcaga tcagttttag 600
 tganacanat ccgcntgcag atggcccctc caacnnttn tggtgntggt tccatggccc 660
 agcattttcc acccttaacc ctgtgttcag gcacttnttc ccccaggaag ccttccctgc 720
 ccacccccatt tatgaattga gccaggtttg gtcctgtggtg tccccgcac ccagcagggg 780
 acaggcaatc aggaggggccc agtaaaggct gagatgaagt ggactgagta gaactggagg 840
 acaagagttg acgtgagttc ctgggagttt ccagagatgg ggctggagg cctggaggaa 900
 ggggccaggc ctcacatttg tgggntccc gaatggcagc ctgagcacag cgtaggccct 960
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 <213> Homo sapiens

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<222> (67)..(81)

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Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
100 105 110

Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
115 120

<210> 3

<211> 441

<212> DNA

<213> Mus musculus

<400> 3

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ctgcagtgct attcatgcac agcacagatg aacaacagag actgtctgaa tgtacagaac 120
tgcagcctgg accagcacag ttgctttaca tcgcgcatcc gggccattgg actcgtgaca 180
gttatcagta agggctgcag ctacagtggt gaggatgact cggagaacta ctatttgggc 240
aagaagaaca tcacgtgctg ctactctgac ctgtgcaatg tcaacggggc ccacaccctg 300
aagccaccca ccaccctggg gctgctgacc gtgctctgca gcctgttgct gtggggctcc 360
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<211> 123
 <212> PRT
 <213> Mus musculus

<400> 4
 Met Lys Thr Val Phe Phe Ile Leu Leu Ala Thr Tyr Leu Ala Leu His
 1 5 10 15
 Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
 20 25 30
 Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
 35 40 45
 Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
 50 55 60
 Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
 65 70 75 80
 Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
 85 90 95
 Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
 100 105 110
 Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu
 115 120

<210> 5
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 5
 Met Lys Ile Phe Leu Pro Val Leu Leu Ala Ala Leu Leu Gly Val Glu
 1 5 10 15
 Arg Ala Ser Ser Leu Met Cys Phe Ser Cys Leu Asn Gln Lys Ser Asn
 20 25 30
 Leu Tyr Cys Leu Lys Pro Thr Ile Cys Ser Asp Gln Asp Asn Tyr Cys
 35 40 45
 Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu Val Thr Phe Gly
 50 55 60

His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys Pro Ile Pro Glu Gly
65 70 75 80

Val Asn Val Gly Val Ala Ser Met Gly Ile Ser Cys Cys Gln Ser Phe
85 90 95

Leu Cys Asn Phe Ser Ala Ala Asp Gly Gly Leu Arg Ala Ser Val Thr
100 105 110

Leu Leu Gly Ala Gly Leu Leu Leu Ser Leu Leu Pro Ala Leu Leu Arg
115 120 125

Phe Gly Pro
130

<210> 6
<211> 123
<212> PRT
<213> Homo sapiens

<400> 6
Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln
1 5 10 15

Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
100 105 110

Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
115 120

<210> 7

<211> 123
<212> PRT
<213> Mus musculus

<400> 7

Met	Lys	Thr	Val	Leu	Phe	Leu	Leu	Leu	Ala	Thr	Tyr	Leu	Ala	Leu	His
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Pro	Gly	Ala	Ala	Leu	Gln	Cys	Tyr	Ser	Cys	Thr	Ala	Gln	Met	Asn	Asn
				20				25					30		
Arg	Asp	Cys	Leu	Asn	Val	Gln	Asn	Cys	Ser	Leu	Asp	Gln	His	Ser	Cys
		35					40					45			
Phe	Thr	Ser	Arg	Ile	Arg	Ala	Ile	Gly	Leu	Val	Thr	Val	Ile	Ser	Lys
	50					55					60				
Gly	Cys	Ser	Ser	Gln	Cys	Glu	Asp	Asp	Ser	Glu	Asn	Tyr	Tyr	Leu	Gly
65					70					75				80	
Lys	Lys	Asn	Ile	Thr	Cys	Cys	Tyr	Ser	Asp	Leu	Cys	Asn	Val	Asn	Gly
				85					90					95	
Ala	His	Thr	Leu	Lys	Pro	Pro	Thr	Thr	Leu	Gly	Leu	Leu	Thr	Val	Leu
			100					105						110	
Cys	Ser	Leu	Leu	Leu	Trp	Gly	Ser	Ser	Arg	Leu					
		115						120							

<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 8

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20

<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 9
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<210> 10
<211> 408
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MONOCLONAL
ANTIBODY 1G8

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ggggcagaac ttgtgaggtc aggggcctca gtcaagttgt cctgcacagc ttctggcttc 120
aacattaaag actactatat aactgggtg aatcagagga ctgaccaggg cctggagtgg 180
attggatgga ttgatcctga gaatgggtgac actgaatttg tcccgaagtt ccagggcaag 240
gccactatga ctgcagacat tttctccaac acagcctacc tgcacctcag cagcctgaca 300
tctgaagaca ctgccgtcta ttactgtaaa acgggggggtt tctggggcca agggactctg 360
gtcactgtct ctgcagccaa aacgacaccc ccatctgtct atccactg 408

<210> 11
<211> 136
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MONOCLONAL
ANTIBODY 1G8

<400> 11
Cys Phe Phe Leu Met Ala Val Val Ile Gly Val Asn Ser Glu Val Gln
1 5 10 15
Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Ser Gly Ala Ser Val Lys
20 25 30
Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asp Tyr Tyr Ile His
35 40 45
Trp Val Asn Gln Arg Pro Asp Gln Gly Leu Glu Trp Ile Gly Trp Ile
50 55 60
Asp Pro Glu Asn Gly Asp Thr Glu Phe Val Pro Lys Phe Gln Gly Lys
65 70 75 80
Ala Thr Met Thr Ala Asp Ile Phe Ser Asn Thr Ala Tyr Leu His Leu

	85	90	95
Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys Lys Thr Gly			
	100	105	110
Gly Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr			
	115	120	125
Thr Pro Pro Ser Val Tyr Pro Leu			
	130	135	

<210> 12
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MONOCLONAL
 ANTIBODY 4A10

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 agctactgga tgcactgggt gaagcagagg cctggacaag gccttgagtg gattggaaat 180
 attgaccctg gtagtggtta cactaactac gctgagaacc tcaagaccaa ggccacactg 240
 actgtagaca catcctccag cacagcctac atgcagctca gcagcctgac atctgaggac 300
 tctgcagtct attactgtac aagccgatct actatgatta cgacgggatt tgcttactgg 360
 ggccaaggga ctctggtcac tgtctctgca gctacaacaa cagcccatc tgtctatcca 420
 ctggcc 426

<210> 13
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 <212> PRT
 <213> Artificial Sequence

<220>
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 ANTIBODY 4A10

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 1 5 10 15
 Pro Gly Ser Glu Leu Val Arg Pro Gly Thr Ser Val Lys Leu Ser Cys
 20 25 30
 Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr Trp Met His Trp Val Lys

35	40	45
Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Asn Ile Asp Pro Gly		
50	55	60
Ser Gly Tyr Thr Asn Tyr Ala Glu Asn Leu Lys Thr Lys Ala Thr Leu		
65	70	75 80
Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu		
	85	90 95
Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Thr Ser Arg Ser Thr Met		
	100	105 110
Ile Thr Thr Gly Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val		
	115	120 125
Ser Ala Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu Ala		
	130	135 140

<210> 14
 <211> 453
 <212> DNA
 <213> Artificial Sequence

<220>
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 tgtgtagcct ctggatttac tttcagtaat tactggatga ctggggtccg ccagtctcca 180
 gagaaggggc ttgagtgggt tgctgaaatt cgattgagat ctgaaaatta tgcaacacat 240
 tatgctggagt ctgtgaaagg gaaattcacc atctcaagag atgattccag aagtcgtctc 300
 tacctgcaaa tgaacaactt aagacctgaa gacagtggaa tttattactg tacagatggg 360
 ctgggacgac ctaactgggg ccaagggact ctggtcactg tctctgcagc caaacgaca 420
 ccccatctg tctatccact ggccccttgt gta 453

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 <213> Artificial Sequence

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Asn Asp Phe Gly Leu Ser Trp Val Phe Ile Ile Val Leu Leu Lys Gly
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Val Arg Ser Glu Val Arg Leu Glu Glu Ser Gly Gly Gly Trp Val Gln
20 25 30

Pro Gly Gly Ser Met Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Phe
35 40 45

Ser Asn Tyr Trp Met Thr Trp Val Arg Gln Ser Pro Glu Lys Gly Leu
50 55 60

Glu Trp Val Ala Glu Ile Arg Leu Arg Ser Glu Asn Tyr Ala Thr His
65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Lys Phe Thr Ile Ser Arg Asp Asp Ser
85 90 95

Arg Ser Arg Leu Tyr Leu Gln Met Asn Asn Leu Arg Pro Glu Asp Ser
100 105 110

Gly Ile Tyr Tyr Cys Thr Asp Gly Leu Gly Arg Pro Asn Trp Gly Gln
115 120 125

Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro Ser Val
130 135 140

Tyr Pro Leu Ala Pro Cys Val
145 150

<210> 16

<211> 15

<212> PRT

<213> Homo sapiens

<400> 16

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1 5 10 15

<210> 17

<211> 12

<212> PRT

<213> Homo sapiens

<400> 17

Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly Lys Lys
1 5 10

<210> 18

<211> 15

<212> PRT

<213> Homo sapiens

<400> 18

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1 5 10 15

<210> 19

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<223> Description of Artificial Sequence: RT-PCR PRIMER

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<212> DNA

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<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 20

ccagagcagc aggccgagtg ca 22

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<211> 25

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 21

gggaattcgc acagccttca gggtc 25

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 <223> Description of Artificial Sequence: RT-PCR PRIMER

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 <210> 23
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 <210> 24
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 <220>
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 <210> 25
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<222> (22)
<223> g or c

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<222> (28)
<223> g or t

<220>
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<222> (31)
<223> a or c

<220>
<221> misc_feature
<222> (34)
<223> g or c

<400> 25
ggcgatatcc accatggrat gsagctgkgt matsctctt

39

<210> 26
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<220>
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<223> c or t

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<222> (25)..(26)
<223> a or g

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<223> Description of Artificial Sequence: RT-PCR PRIMER

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<222> (17)

<223> a or g

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<223> c or t

<220>

<221> misc_feature

<222> (33)

<223> g or t

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39